



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.          | CONFIRMATION NO. |
|--|-------------|----------------------|------------------------------|------------------|
| 10/022,283   | 12/20/2001  | Darragh J. Nagle     | MESH034                      | 2361             |
| 24273  | 7590        | 06/21/2007           |                              |                  |
| MOTOROLA, INC<br>INTELLECTUAL PROPERTY SECTION<br>LAW DEPT<br>8000 WEST SUNRISE BLVD<br>FT LAUDERDAL, FL 33322 |             |                      | EXAMINER<br>ROBERTS, BRIAN S |                  |
|  |             |                      | ART UNIT                     | PAPER NUMBER     |
|  |             |                      | 2616                         |                  |
|  |             |                      | MAIL DATE                    | DELIVERY MODE    |
|  |             |                      | 06/21/2007                   | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/022,283

Applicant(s)

NAGLE, DARRAGH J.

Examiner

Brian Roberts

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 31-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20, 31-40 and 42-51 is/are rejected.
- 7) ☒ Claim(s) 41 and 52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

- The amendment filed on 04/20/2007 is acknowledged.
- Claims 1-20 and 31-52 remain pending.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-20, 31-40, and 42-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Brabson et al. (US 6108710)

- In reference to claim 1, 11

In Figure 2, Brabson teaches a system and method for optimizing route generation that includes:

- A routing node inherently including a receiver for receiving data packets from another node
- The routing node inherently including controller adapted to:
  - Extract a calculated route (*routing strategy*) from the data packet where the calculated route (*routing strategy*) includes information pertaining to a routing path to route the packet to a destination node where the routing path includes one of the other nodes in the network (column 5 lines 50-55)

Art Unit: 2616

- Comparing the calculated route (*routing strategy*) with routing information stored within the routing node (column 5 lines 55 – column 6 lines 4)
- Selecting a routing path to route the data packet based on the comparing of the calculated route (*routing strategy*) (column 6 lines 5-24)
- Updating the calculated route (*routing strategy*) in the data packet (column 6 lines 5-24)

- In reference to claims 2, 12

In Figure 2, Brabson further teaches the calculated route (*routing strategy*) includes information representing at least some of the nodes that the data packet visited prior to being received by the node. (column 5 line 50 – column 6 line 24)

- In reference to claims 3, 13

In Figure 2, Brabson further teaches the routing node inherently including a transmitter for transmitting the data packet to a node along the routing path. (column 6 lines 1-4)

- In reference to claims 4, 14

In Figure 2, Brabson further teaches the controller updating a topology database (*routing table*) at the receiving node based on the updated calculated route (*routing strategy*). (column 6 lines 18-24)

- In reference to claims 5, 15

In Figure 2, Brabson further teaches the controller selecting a routing path based on the calculated route (*routing strategy*) in the data packet. (column 6 lines 18-24)

- In reference to claims 6, 16

In Figure 2, Brabson further teaches the controller selecting a routing path different than the routing path identified by the initial calculated route (*routing strategy*). (column 5 line 50 – column 6 line 24)

- In reference to claims 7, 17

In Figure 2, Brabson further teaches the controller combining data representing at least two routing paths to generate a different routing path. (column 5 line 50 – column 6 line 24)

- In reference to claims 8, 18

In Figure 2, Brabson further teaches the transmitter sending the updated calculated route (*routing strategy*) to other nodes (column 5 line 50 – column 6 line 24)

- In reference to claims 9, 19

In Figure 2, Brabson further teaches the controller generating a new calculated route (*routing strategy*). (column 5 line 50 – column 6 line 24)

- In reference to claim 10, 20

In Figure 1, Brabson further teaches the network comprises an ad-hoc network.  
(column 2 line 53 – column 3 line 11)

- In reference to claim 31, 42

In Figure 2, Brabson teaches a system and method for optimizing route generation that includes:

- Generating a data packet at an originator node A, the data packet comprising: a node history, calculated route (*routing strategy*), and a destination node field; (column 5 line 31 – column 6 line 24)
- Receiving the data packet by a routing node; when the routing node is not the destination node, at the routing node: (column 5 line 50 – column 6 line 24)
- Identifying a best calculated route (*routing strategy*) by comparing the calculated route (*routing strategy*) to one or more route information stored in the routing node (column 5 lines 55 – column 6 lines 4)
- Generating a revised data packet route including a revised calculated route (*routing strategy*) when the best calculated route (*routing strategy*) differs from the original calculated route (*routing strategy*) (column 5 line 50 – column 6 line 24)
- Transmitting the data packet to a next routing node along a data packet route associated with the best calculated route (*routing strategy*) (column 6 lines 1-24)

- Repeating the receiving, identifying, generating, and transmitting steps at the next routing node. (column 5 line 50 – column 6 line 24)

- In reference to claim 32, 43

In Figure 2, Brabson further teaches storing the one or more route information in a topology database (*routing table*) in a memory of the routing node. (column 5 line 50 – column 6 line 4)

- In reference to claim 33, 44

In Figure 2, Brabson further teaches the one or more route information comprises one or more information about at least one other data packet that had previously traversed the routing node selected from a group comprising a calculated route (*routing strategy*) and a selected destination node. (column 5 line 50 – column 6 line 24)

- In reference to claim 34, 45

In Figure 2, Brabson further teaches updating the topology database (*routing table*) at the routing node using the node history, the calculated route (*routing strategy*), and the destination node of the data packet, and wherein the repeating step includes repeating the updating step. (column 5 line 50 – column 6 line 24)

- In reference to claim 35, 46

In Figure 2, Brabson further teaches updating the topology database (*routing table*) at the routing node using the revised calculated route (*routing strategy*) and the destination node of the data packet, and wherein the repeating step includes repeating the updating step. (column 5 line 50 – column 6 line 24)

- In reference to claim 36, 47

In Figure 2, Brabson further teaches receiving a routing table broadcast from a neighbor node; and updating the routing table using the routing table broadcast. (column 6 lines 5-24)

- In reference to claim 37,48

In Figure 2, Brabson further teaches that the node history comprises one or more data representing one or more nodes through which the data packet has previously passed through. (column 5 line 50 – column 6 line 24)

- In reference to claim 38,49

In Figure 2, Brabson further teaches that the calculated route (*routing strategy*) comprises a desired route which the data packet is to traverse when traveling to the destination node. (column 5 line 50-53)

- In reference to claim 39-40, 50-51



In Figure 2, Brabson further teaches that the calculated route (*routing strategy*) is associated with the route length for the data packet. (column 5 line 50 – column 6 line 24)

3. Claims 1-20, 31-40, and 42-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Flanagan. (US 5506838)

- In reference to claim 1

In Figure 5, Flanagan teaches a system and method that includes:

- A routing node inherently including a receiver for receiving data packets from another node (Step 254) (column 9 lines 33-35)
- The routing node inherently including controller adapted to:
  - Extract a routing strategy from the data packet where the routing strategy includes information pertaining to a routing path to route the packet to a destination node where the routing path includes one of the other nodes in the network (Step 256) (column 9 line 49 – column 10 line 5)
  - Comparing the routing strategy with routing information stored within the routing node (Step 256) (column 9 line 35 – column 10 line 5)
  - Selecting a routing path to route the data packet based on the comparing of the routing strategy (Step 258) (column 9 line 49 – column 10 line 5)
  - Updating the routing strategy in the data packet (Step 262) (column 10 lines 23-43)

- In reference to claims 2, 12

In Figure 4a, Flanagan further teaches the routing strategy includes information representing at least some of the nodes that the data packet visited prior to being received by the node. (column 7 line 36 – column 8 line 39)

- In reference to claims 3, 13

In Figure 5, Flanagan further teaches the routing node inherently including a transmitter for transmitting the data packet to a node along the routing path. (column 10 lines 23-43)

- In reference to claims 4, 14

In Figure 5, Flanagan further teaches the controller updating a routing table at the receiving node based on the routing strategy. (column 9 line 49 – column 10 line 5)

- In reference to claims 5, 15

In Figure 5, Flanagan further teaches the controller selecting a routing path based on the routing strategy in the data packet. (column 6 lines 18-24)

- In reference to claims 6, 16

In Figure 5, Flanagan further teaches the controller selecting a routing path different than the routing path identified by the routing strategy. (column 10 lines 6-43)

- In reference to claims 7, 17

In Figure 5, Flanagan further teaches the controller combining data representing at least two routing paths to generate a different routing path. (column 10 lines 6-43)

- In reference to claims 8, 18

In Figure 5, Flanagan further teaches the transmitter sending the routing strategy to other nodes (column 10 lines 6-43)

- In reference to claims 9, 19

In Figure 5, Flanagan further teaches the controller generating a new routing strategy. (column 10 lines 6-43)

- In reference to claim 10, 20

In Figure 1, Flanagan further teaches the network comprises an ad-hoc network. (column 3 line 57 – column 4 line 40)

- In reference to claim 31, 42

In Figure 4a and 5, Flanagan teaches a system and method for optimizing route generation that includes:

- Generating a data packet at an originator node, the data packet comprising: a node history, routing strategy, and a destination node field (column 7 line 36 – column 8 line 39)

- Receiving the data packet by a routing node; when the routing node is not the destination node, at the routing node: (column 9 lines 33-35)
- Identifying routing strategy by comparing routing strategy to one or more route information stored in the routing node (column 9 line 35 – column 10 line 5)
- Generating a revised data packet route including a revised routing strategy when the routing strategy differs from the routing strategy (column 10 lines 6-43)
- Transmitting the data packet to a next routing node along a data packet route associated with the best routing strategy (column 10 lines 6-43)
- Repeating the receiving, identifying, generating, and transmitting steps at the next routing node. (column 9 line 8 – column 10 line 43)

- In reference to claim 32, 43

In Figure 5, Flanagan further teaches storing the one or more route information in a routing table in a memory of the routing node. (column 9 line 49 – column 10 line 5)

- In reference to claim 33, 44

In Figure 4a, Flanagan further teaches the one or more route information comprises one or more information about at least one other data packet that had previously traversed the routing node selected from a group comprising a routing strategy and a selected destination node. (column 7 line 36 – column 8 line 39)

- In reference to claim 34, 45

In Figure 5, Flanagan further teaches updating the routing table at the routing node using the node history, the routing strategy, and the destination node of the data packet, and wherein the repeating step includes repeating the updating step. (column 9 line 8 – column 10 line 43)

- In reference to claim 35, 46

In Figure 5, Flanagan further teaches updating the routing table at the routing node using the revised routing strategy and the destination node of the data packet, and wherein the repeating step includes repeating the updating step. (column 9 line 8 – column 10 line 43)

- In reference to claim 36, 47

In Figure 5, Flanagan further teaches receiving a routing table broadcast from a neighbor node; and updating the routing table using the routing table broadcast. (column 10 lines 6-43)

- In reference to claim 37,48

In Figure 4a, Flanagan further teaches that the node history comprises one or more data representing one or more nodes through which the data packet has previously passed through. (column 7 line 36 – column 8 line 39)

- In reference to claim 38,49

In Figure 4a, Flanagan further teaches that the routing strategy comprises a desired route which the data packet is to traverse when traveling to the destination node. (column 7 line 36 – column 8 line 39)

- In reference to claim 39-40, 50-51

In Figure 5, Flanagan further teaches that the routing strategy is associated with the route length for the data packet. (column 10 lines 6-43)

#### ***Allowable Subject Matter***

4. Claims 41 and 52 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

5. Applicant's arguments filed 04/20/2007 have been fully considered but they are not persuasive.

- In the Remarks on pg. 12 of the Amendment, the Applicant contends that Brabson does not teach the limitation "extracting routing strategy data from said received data packet". The Office Action relies upon a reply packet to

meet the limitation of a data packet. The Applicant contends that the “reply packet” is not analogous to a “data packet”.

- The Examiner agrees that the disclosed invention of Brabson is different from the disclosed invention of the instant application. However, the disclosed invention of Brabson meets the limitations of the claimed invention of the instant application. The term “data packet” is a broad term and several types of packets can be broadly interpreted to be a data packet. The reply packet containing a calculated route of Brabson meets the limitation of a received data packet.
- In the Remarks on pg 15. of the Amendment, the Applicant contends that Flanagan does not teach or suggest that routing strategy data is extracted from the received data packet.
- The Examiner respectfully disagrees. In Figure 5, Flanagan teaches that if it is determined in step 256 that the information (routing strategy data) contained in the received packet is new, then the information (routing strategy data) contained in the packet may be stored by the receiving node in memory in step 258. (column 9 lines 49-52) From the above cited passage, it is clear that there is inherently a step of extracting the information (routing strategy data) from the received data packet or else the node would not be able to determine if the received information (routing strategy data) is new or store the received new information (routing strategy data) in memory.

- In the Remarks on pg. 15 of the Amendment, the Applicant contends that Flanagan does not teach the limitation “extracting routing strategy data from said received data packet”. The Office Action relies upon a discovery packet/node status packet to meet the limitation of a data packet. The Applicant contends that the “discovery packet/node status packet” is not analogous to a “data packet”.
- The Examiner respectfully disagrees. The term “data packet” is a broad term and several types of packets can be broadly interpreted to be a data packet. The node status packet of Flanagan containing new information (routing strategy data) meets the limitation of a received data packet.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



Art Unit: 2616

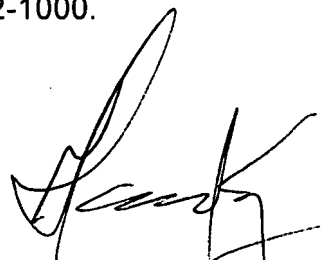
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Roberts whose telephone number is (571) 272-3095. The examiner can normally be reached on M-F 10:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BSR  
06/13/2007



HASSAN KIZOU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600